

§ 75.341

automatically close when either of the following occurs:

(A) The temperature in the non-combustible structure reaches 165 °F; or

(B) The carbon monoxide concentration reaches 10 parts per million above the ambient level for the area, or the optical density of smoke reaches 0.022 per meter. At least every 31 days, sensors installed to monitor for carbon monoxide shall be calibrated with a known concentration of carbon monoxide and air sufficient to activate the closing door, or each smoke sensor shall be tested to determine that it functions correctly.

(2) When a fire suppression system is used, these installations shall be—

(i) Ventilated with intake air that is coursed into a return air course or to the surface and that is not used to ventilate working places; or

(ii) Ventilated with intake air that is monitored for carbon monoxide or smoke by an AMS installed and operated according to § 75.351. Monitoring of intake air ventilating battery charging stations shall be done with sensors not affected by hydrogen.

(b) This section does not apply to—

(1) Rectifiers and power centers with transformers that are either dry-type or contain nonflammable liquid, if they are located at or near the section and are moved as the working section advances or retreats;

(2) Submersible pumps;

(3) Permissible pumps and associated permissible switchgear;

(4) Pumps located on or near the section and that are moved as the working section advances or retreats;

(5) Pumps installed in anthracite mines; and

(6) Small portable pumps.

§ 75.341 Direct-fired intake air heaters.

(a) If any system used to heat intake air malfunctions, the heaters affected shall switch off automatically.

(b) Thermal overload devices shall protect the blower motor from overheating.

(c) The fuel supply shall turn off automatically if a flame-out occurs.

(d) Each heater shall be located or guarded to prevent contact by persons and shall be equipped with a screen at

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the inlet to prevent combustible materials from passing over the burner units.

(e) If intake air heaters use liquefied fuel systems—

(1) Hydrostatic relief valves installed on vaporizers and on storage tanks shall be vented; and

(2) Fuel storage tanks shall be located or protected to prevent fuel from leaking into the mine.

(f) Following any period of 8 hours or more during which a heater does not operate, the heater and its associated components shall be examined within its first hour of operation. Additionally, each heater and its components shall be examined at least once each shift that the heater operates. The examination shall include measurement of the carbon monoxide concentration at the bottom of each shaft, slope, or in the drift opening where air is being heated. The measurements shall be taken by a person designated by the operator or by a carbon monoxide sensor that is calibrated with a known concentration of carbon monoxide and air at least once every 31 days. When the carbon monoxide concentration at this location reaches 50 parts per million, the heater causing the elevated carbon monoxide level shall be shut down.

§ 75.342 Methane monitors.

(a)(1) MSHA approved methane monitors shall be installed on all face cutting machines, continuous miners, longwall face equipment, loading machines, and other mechanized equipment used to extract or load coal within the working place.

(2) The sensing device for methane monitors on longwall shearing machines shall be installed at the return air end of the longwall face. An additional sensing device also shall be installed on the longwall shearing machine, downwind and as close to the cutting head as practicable. An alternative location or locations for the sensing device required on the longwall shearing machine may be approved in the ventilation plan.

(3) The sensing devices of methane monitors shall be installed as close to the working face as practicable.